

REMARKS

In a telephone conversation with the Examiner, the Applicant provisionally elected, with traverse, to prosecute the invention of claims 1-9, as such claims 10-16 are now withdrawn from further consideration.

Regarding the Information Disclosure Statement submitted on February 17, 2004, the Applicant would like to thank the Examiner for his verbal indication, during our telephone conversation of July 9, 2004, that he would consider the two (2) U.S. published applications, namely, 2003/0042602A1 and 2003-0146771. For the convenience of the Examiner, copies of 2003/0042602A1 and 2003-0146771 are being supplied for consideration at this time

In addition, a new Information Disclosure Statement, accompanying PTO Form SB/08a/08b list two (2) new publications is enclosed. In addition, copies of 2002/0186106 and 2004/0004216 are enclosed for consideration at this time.

The Applicant thanks the Examiner for noting that the priority claim has not been perfected by the filing of a certified copy of the Canadian priority application. This will be done upon patentable subject matter being confirmed by the Examiner.

Claims 1-5 are rejected, under 35 U.S.C. § 102, as being anticipated in view of Tuttle '205. The Applicant acknowledges and respectfully traverses the raised anticipatory rejection in view of the following remarks.

Tuttle '205 discloses a testing and burn-in of IC chips using radio frequency transmission. This reference describes three signals being exchanged between interrogator unit 20 and IC chip 12. First, signal 48 is a power signal which passes from antenna 46 of interrogator unit 20 to antenna 82 of IC chip 12 to power the power circuitry of IC chip 12. Second, signal 64 is an interrogating signal which passes from antenna 62 of interrogator unit 20 to antenna 106 of IC chip 12. Third, signal 120 is a test data signal which passes back from antenna 118 of IC chip 12 to antenna 66 of interrogator unit, which receives the data for evaluation.

The Applicant asserts that the power signal of Tuttle '205 is optional. As discussed by Tuttle '205 on page 5 between lines 47 and 57, the test circuit of IC chip 12 may be powered in other ways.

The Applicant also notes that the antennas of Tuttle '205 represent only one form of technology for sending and receiving signals, there could also be optical or magnetic interfaces. To demonstrate the utility of his invention, Tuttle '205 indicates that with a ULSI circuit of 8 million circuit elements, his test interface circuitry will consume only 30,000 elements. An 8 million element ULSI chip would, typically, have 52 contact points to be tested.

In order for Tuttle '205 to maintain a one to one relationship, as currently claimed in the present application, Tuttle '205 must teach 52 separate antennas. It is respectfully submitted that this one to one relationship with 52 antenna corresponding to the fifty two (52) contact points on the chip, would not be obvious from the teachings of Tuttle '205. Tuttle '205 has built a wireless i/o test cell (30,000 elements) that is capable of testing all of the contact points on a chip with an interrogating signal 64 passing from antenna 62 of interrogator unit 20 to antenna 106 of IC chip 12 and then a test data signal 120 passing back from antenna 118 of IC chip 12 to antenna 66 of interrogator unit. It is respectfully submitted that one skilled in the art would not consider replicating the teachings of Tuttle '205 fifty two (52) times on a chip to provide a wireless i/o cell at every contact point on the chip which is to be tested. Tuttle '205 replicated fifty two (52) times would occupy an overwhelming 1.56 million elements of a 8 million element chip.

As currently claimed and in distinct contrast with Tuttle '205, page 3 of the present application between lines 6 and 9, describes that the non-contact tester has a plurality of contact points which are adapted to correspond on a one to one relationship with a plurality of contact points provided on a wireless i/o cell 14 of electronic circuit that is being tested. Further information is subsequently provided in the application on page 4 lines 1-6 regarding micro-fabricated antenna structures.

In order to emphasize the above noted distinctions between the presently claimed invention and the applied art, the independent claims of this application now recite the features of "[a] non-contact tester for electronic circuits, comprising in combination: an electronic circuit which includes a plurality of wireless i/o cells and means for sending and receiving signals via each of the wireless i/o cells, and a wireless i/o cell being provided for each contact point on the electronic circuit to be tested; and an independent scanning head having a plurality of wireless i/o cells compatible with the at least one wireless i/o cells on the electronic circuit, such that data may be exchanged with the electronic circuit to confirm proper functioning of the electronic circuit, and the number of wireless i/o cells on the independent scanning head corresponding in a one to one relationship with the number of wireless i/o cells on the electronic circuit being tested." Such features are believed to clearly and patentably distinguish the presently claimed invention from all of the art of record, including the applied art.

Next, claims 6-9 are rejected, under 35 U.S.C. § 103, as being unpatentable over Tuttle '205 in view of White et al. '782 . The Applicant acknowledges and respectfully traverses the raised obviousness rejection in view of the following remarks.

The Applicant acknowledges that the additional references of White et al. '782 may arguably related to the feature(s) indicated by the Examiner in the official action. Nevertheless, the Applicant respectfully submits that the combination of the base reference of Tuttle '205 with this additional art still fails to in any way teach, suggest or disclose the above distinguishing features of the presently claimed invention. As such, all of the raised rejections should be withdrawn at this time in view of the above amendments and remarks.

In view of the above amendments and remarks, it is respectfully submitted that all of the raised rejection(s) should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejection(s) or applicability of the Tuttle '205 and/or White et al. '782 references, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which

contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, e.g., the cancellation of withdrawn claims 10-16, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,



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